Case Study

We are in the summer of 2018. Yes, COVID-19 still does not exist, Donald Trump is the President of the United States, and the world has yet to be amazed by the wonderful capabilities of AI-powered chat agents.

**Eniac is an online marketplace specializing in Apple-compatible accessories**. It was founded ten years ago in Spain and has since grown and expanded to other neighboring countries.

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In addition to offering a wide catalog of products at competitive prices, Eniac provides friendly and professional tech support and consultation to its customers. The warmhearted spirit that thrives with direct contact with the customers is at the core of the company.

Since the company went public, investors have been pushing for Eniac to scale up the business and become a major e-commerce player globally. It goes without saying that it is an arduous challenge to do so while retaining the human side of the business, which is Eniac’s emblem.

Here are some numbers that will help you understand Eniac’s scope (data from April 2017 to March 2018):

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As part of Eniac’s scaling efforts, a Data department was established. Currently, it consists of three members:

1. **The Head of Data**: responsible for designing, setting up, and maintaining the company’s data architecture. They oversee data pipelines and ensure the reliability of the data.
2. **The Data Scientist**: hired to develop and deploy a recommender system to enhance cross-selling opportunities.
3. **The Data Analyst**: and that’s you! The Data department needed someone who is more than just an engineer or a nerd. They sought someone who can find meaning in data and effectively communicate insights and recommendations to other departments.

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The organigram illustrates that your direct reporting line is to the Head of Data, yet it’s crucial to maintain robust interconnections with other departments, including Marketing. Furthermore, it’s essential to incorporate the overall business strategy as an integral part of your everyday tasks, ensuring your work always aligns with the corporate vision.

**Eniac is exploring an expansion to the Brazilian market**. Data shows that Brazil has an eCommerce revenue similar to that of Spain and Italy: an already huge market with an even bigger potential for growth. The problem for Eniac is the lack of knowledge of such a market. The company doesn’t have ties with local providers, package delivery services, or customer service agencies. Creating these ties and knowing the market would take a lot of time, while the board of directors has demanded the expansion to happen within the next year.

Here comes **Magist**. Magist is a Brazilian Software as a Service company that offers a centralized order management system to connect small and medium-sized stores with the biggest Brazilian marketplaces. In addition, Magist provides after-sales services such as stock and warehouse management, product shipment, and customer service related to the shipment.

Magist is already a big player and allows small companies to benefit from its economies of scale: it has signed advantageous contracts with the marketplaces and with the Post Office, thus reducing the cost of fees and, most importantly, the bureaucracy involved in getting things started.

Eniac sells through its own e-commerce store in Europe, with its own site and direct providers for all the steps of the supply chain. In Brazil, however, Eniac is considering signing a 3-year contract with Magist as an intermediate step, while it tests the market, creates brand awareness, and explores the option of setting up its own supply chain management.

Note that Magist differs from e-commerce platforms like Amazon or eBay. Eniac will continue selling its products in Brazil through its own website and brand.

The economic conditions of the deal are already being discussed. But not everyone in the company is happy moving on with this. There are two main concerns:

1. Eniac’s catalogue is 100% tech products and heavily based on Apple-compatible accessories. **It is not clear that Magist is a good partner for these high-end tech products**.
2. Among Eniac’s efforts to have happy customers, fast deliveries are key. The delivery fees resulting from Magist’s deal with the public Post Office might be cheap, but at what cost? **Are deliveries fast enough?**

Thankfully, Magist has allowed Eniac to access a snapshot of their database. The data might have the answer to these concerns. Here’s where you come in: you will be the one exploring Magist’s database. On day 5 of your first week, you will meet the board of directors and expose your recommendations.

There is one single deliverable for this project: the presentation.

**1. Scope**

The main purpose of the presentation is to recommend whether or not to sign the deal with Magist. Your recommendation should be based on a clear story created from the information you get from the given dataset and your own research about the Brazilian market, like current trends, business opportunities, and competitors.

**2. Format**

You can prepare a presentation on any software of your choice, as long as it offers online collaborative editing so that the whole group can work on it at the same time. We strongly recommend [Google Slides,](http://slides.google.com/)[Canva,](http://www.canva.com/) or [Prezi](https://prezi.com/). These platforms offer a variety of templates and built-in themes, which can help you to create a professional-looking presentation without investing substantial time in design choices.

You may also display your Tableau plots directly, ensuring they are clearly legible on your shared screen.

**3. Time limit**

Aim for a 3-4 minute presentation, with a hard limit of 5 minutes. The instructor will enforce this limit strictly, so practice beforehand to ensure timing accuracy.

**Answer business questions.**

Whenever you feel ready for it, go through the questions below. Note that in many cases, you will have to translate business terms into tables, columns and aggregations. Whenever needed, make your own educated guesses or assumptions (e.g. what can be considered a “tech” or an “expensive” product).

**3.1. In relation to the products:**

* What categories of tech products does Magist have?
* How many products of these tech categories have been sold (within the time window of the database snapshot)? What percentage does that represent from the overall number of products sold?
* What’s the average price of the products being sold?
* Are expensive tech products popular? \*

\* TIP: Look at [the function CASE WHEN](https://www.w3schools.com/sql/sql_case.asp) to accomplish this task.

**3.2. In relation to the sellers:**

* How many months of data are included in the magist database?
* How many sellers are there? How many Tech sellers are there? What percentage of overall sellers are Tech sellers?
* What is the total amount earned by all sellers? What is the total amount earned by all Tech sellers?
* Can you work out the average monthly income of all sellers? Can you work out the average monthly income of Tech sellers?

**3.3. In relation to the delivery time:**

* What’s the average time between the order being placed and the product being delivered?
* How many orders are delivered on time vs orders delivered with a delay?
* Is there any pattern for delayed orders, e.g. big products being delayed more often?